OIPE JC109
JAN 2 8 2004
PATENT & TRADEMARK OFFICE

PATENT
Client-Matter No.:
66821-233

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	Group Art Unit:
	Unassigned
Ruoslahti et al.	Confirmation no.:
	Unassigned
	Examiner: Unassigned
Serial No.: 10/648,813	
Filed: August 25, 2003	
For: COLLAGEN-BINDING MOLECULES THAT SELECTIVELY HOME TO TUMOR VASCULATURE AND METHODS OF USING SAME	

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on January 23, 2004.

By: Andrea L. Gashler
Andrea L. Gashler, Reg. No. 41,029

January 23, 2004
Date of Signature

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R. § 1.97, enclosed are references relating to the above-identified application. For the convenience of the Examiner, these references are listed on the attached Form PTO-1449, and a copy of each is enclosed herewith.

It is respectfully requested that these references be considered in the examination of this application and that their consideration be made of written record in the application file.

No fee is deemed necessary in connection with the filing of this Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 502624.

Respectfully submitted,

Date: January 23, 2004

Andrea L. Gashler
Registration No.: 41,029
Telephone: (858) 535-9001
Facsimile: (858) 535-8949

McDERMOTT, WILL & EMERY
4370 La Jolla Village Drive
Suite 700
San Diego, California 92122

OIPE
JAN 2 8 2004
PATENT & TRADEMARK OFFICE
JC100

Form PTO 1449 US Department of Commerce Patent and Trademark Office	ATTY DOCKET NO: 66821-233	SERIAL NO. 10/648,813
	APPLICANT: Ruoslahti et al.	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: August 25, 2003	GROUP: Unassigned

U.S. PATENT DOCUMENTS

EXAM. INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
		5,622,699	04/22/1997	Ruoslahti et al.	424	93.6	09/11/1995

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANS-LATION YES/NO
		WO 99/46284	09/16/1999	PCT			
		WO 99/13329	03/18/99	PCT			
		WO 98/10795	03/19/1998	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

		Antman, "Randomized Trials of High Dose Chemotherapy for Breast Cancer," Biochimica et Biophysica Acta 1471:M89-M98 (2001)
		Arap et al., "Cancer Treatment by Targeted Drug Delivery to Tumor Vasculature in a Mouse Model," Science 279:377-380 (1998)
		Borgstrom et al., "Importance of VEGF for breast cancer angiogenesis in vivo: implications from intravital microscopy of combination treatments with an anti-VEGF neutralizing monoclonal antibody and doxorubicin," Anticancer Res. 19:4203-4214 (1999).

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

OIPE JC109
JAN 28 2004
PATENT & TRADEMARK OFFICE

Form PTO 1449	US Department of Commerce Patent and Trademark Office	ATTY DOCKET NO: 66821-233	SERIAL NO. 10/648,813
		APPLICANT: Ruoslahti et al.	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		FILING DATE: August 25, 2003	GROUP: Unassigned

		Brodsky and Ramshaw, "The collagen triple-helix structure," Matrix Biol. 15:545-554 (1997).
		Brown et al., "A novel approach for the identification of unique tumor vasculature binding peptides using an E. coli peptide display library," Ann. Surg. Oncol. 7:743-749 (2000).
		Burris III, "Docetaxel (Taxotere) Plus Trastuzumab (Herceptin) in Breast Cancer," Semin. Oncol. 28(suppl 3):38-44 (2001)
		Carnemolla et al., "Enhancement of the antitumor properties of interleukin-2 by its targeted delivery to the tumor blood vessel extracellular matrix," Blood 99:1659-1665 (2002).
		Chan et al., "Prospective Randomized Trial of Docetaxel Versus Doxorubicin in Patients with Metastatic Breast Cancer," J. Clin. Oncol. 17:2341-2354 (1999)
		Chen et al., "RGD-Tachyplesin Inhibits Tumor Growth," Cancer Res. 61:2434-2438 (2001)
		Crown, "The Platinum Agents: A Role in Breast Cancer Treatment?," Semin. Oncol. 28(suppl 3):28-37 (2001)
		Curnis et al., "Enhancement of tumor necrosis factor alpha antitumor immunotherapeutic properties by targeted delivery to aminopeptidase N (CD 13)," Nature Biotech. 18:1185-1190 (2000).
		Dogic et al., "Extracellular matrix, integrins and focal adhesions," Curr. Topics Pathol. 93:75-83 (1999).
		Ellerby et al., "Anti-cancer activity of targeted pro-apoptotic peptides," Nat. Med. 5:1032-1038 (1999)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

OIPE JC109 JAN 2 8 2004 PATENT & TRADEMARK OFFICE

Form PTO 1449	US Department of Commerce Patent and Trademark Office	ATTY DOCKET NO: 66821-233	SERIAL NO. 10/648,813
		APPLICANT: Ruoslahti et al.	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		FILING DATE: August 25, 2003	GROUP: Unassigned

		Engvall et al., "Nonhelical, fibronectin-binding basement-membrane collagen from endodermal cell culture," Cell 29:475-482 (1982).
		Essler and Ruoslahti, "Molecular specialization of breast vasculature: A breast-homing phage-displayed peptide binds to aminopeptidase P in breast vasculature," Proc. Natl. Acad. Sci. USA 99:2252-2257 (2002).
		Fisher et al., "Tamoxifen for Prevention of Breast Cancer: Report of the National Surgical Adjuvant Breast and Bowel Project P-1 Study," J. Natl. Cancer Instit. 90:1371-1388 (1998)
		Harris et al., "Cancer of the Breast", Cancer: Principles and Practice of Oncology, 4th Edition, Chapter 40, DeVita, Jr. et al., J.P. Lippincott: Philadelphia (1993)
		Herbst et al., "Differential effects of laminin, intact type IV collagen, and specific domains of type IV collagen on endothelial cell adhesion and migration," J. Cell Biol. 106:1365-1373 (1988).
		Hood et al., "Tumor regression by targeted gene delivery to the neovasculature," Science 296:2404-2407 (2002).
		Hoppe and Reid, "Collectins - soluble proteins containing collagenous regions and lectin domains - and their roles in innate immunity," Protein. Sci. 3:1143-1158 (1994).
		Jenkins and Raines, "Insights on the conformational stability of collagen," Nat. Prod. Rep. 19:49-59 (2002).
		Kennel et al., "Labeling and distribution of linear peptides identified using in vivo phage-display selection for tumors," Nuc. Med. Biol. 27:815-825 (2000).

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

OIPE JC100 JAN 28 2004 PATENT & TRADEMARK OFFICE

Form PTO 1449	US Department of Commerce Patent and Trademark Office	ATTY DOCKET NO: 66821-233	SERIAL NO. 10/648,813
		APPLICANT: Ruoslahti et al.	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		FILING DATE: August 25, 2003	GROUP: Unassigned

		Koivunen et al., "Tumor Targeting with a Selective Gelatinase Inhibitor," Nat. Biotechnol. 17:768-774 (1999)
		Kühn, "Basement membrane (Type IV) collagen," Matrix Biology 14:439-445 (1994).
		Laakkonen et al., "A tumor-homing peptide with a targeting specificity related to lymphatic vessels," Nature Med. 8:751-755 (2002).
		Marneros and Olsen, "The role of collagen-derived proteolytic fragments in angiogenesis," Matrix Biology 20:337-345 (2001).
		Myllyharju and Kivirikko, "Collagens and collagen-related diseases," Ann. Med. 33:7 (2001).
		Oku et al., "Anti-neo-vascular therapy using novel peptides homing to angiogenic vessels," Oncogene 21:2662-2669 (2002).
		Paridaens et al., "Paclitaxel Versus Doxorubicin as First-Line Single-Agent Chemotherapy for Metastatic Breast Cancer: a European Organization for Research and Treatment of Cancer Randomized Study with Cross-over," J. Clin. Oncol. 18:724-733 (2000)
		Pasqualini and Ruoslahti, "Organ Targeting in vivo Using Phage Display Peptide Libraries," Nature 380:364-366 (1996)
		Porkka et al., "A fragment of the HMGN2 protein homes to the nuclei of tumor cells and tumor endothelial cells in vivo," Proc. Natl. Acad. Sci. USA 99:7444-7449 (2002).
		Rajotte et al., "Molecular Heterogeneity of the Vascular Endothelium Revealed by in Vivo Phage Display," J. Clin. Invest. 102:430-437 (1998)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

OIPE JC109 JAN 2 8 2004 PATENT & TRADEMARK OFFICE

Form PTO 1449	US Department of Commerce Patent and Trademark Office	ATTY DOCKET NO: 66821-233	SERIAL NO. 10/648,813
		APPLICANT: Ruoslahti et al.	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		FILING DATE: August 25, 2003	GROUP: Unassigned

		Rasmussen et al., "Tumor cell targeting by phage-displayed peptides," Cancer Gene Ther. 9:606-612 (2002).
		Ritter et al., "Insulin-like growth factor 2 and potential regulators of hemangioma growth and involution identified by large-scale expression analysis," Proc. Natl. Acad. Sci. USA 99:7455-7460 (2002).
		Ruoslahti and Rajotte, "An address system in the vasculature of normal tissues and tumors," Annu. Rev. Immunol. 18:813-827 (2000).
		Sado et al., "Organization and expression of basement membrane collagen IV genes and their roles in human disorders," J. Biochem. 123:767-776 (1998).
		Sidhu et al., "Phage display for selection of novel binding peptides," Methods Enzym. 328:333-363 (2000).
		Sipkins et al., "Detection of tumor angiogenesis in vivo by αVβ3-targeted magnetic resonance imaging," Nature Med. 4:623-626 (1998).
		Timpl and Brown, "Supramolecular assembly of basement membranes," Bioessays 18:123-132 (1996).
		Timpl et al., "Macromolecular organization of basement membranes," Curr. Opin. Cell Biol. 8:618-624 (1996).
		Tsai, "Stuck on the ECM," Trends Cell Biol. 8:292-295 (1998).
		Vicini et al., "Accelerated Treatment of Breast Cancer," Journal of Clinical Oncology 19:1993-2001 (2001).
		White et al., "Antibody-Targeted Immunotherapy for Treatment of Malignancy," Annu. Rev. Med. 52:125-145 (2001)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

OIPE JC109 JAN 2 8 2004 PATENT & TRADEMARK OFFICE

Form PTO 1449	US Department of Commerce Patent and Trademark Office	ATTY DOCKET NO: 66821-233	SERIAL NO. 10/648,813
		APPLICANT: Ruoslahti et al.	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		FILING DATE: August 25, 2003	GROUP: Unassigned

		Wolff, "Systemic Therapy," Curr. Opin. Oncology 12:532-540 (2000)
		Xu et al., "Proteolytic exposure of a cryptic site within collagen type IV is required for angiogenesis and tumor growth in vivo," J. Cell Biol. 154:1069-1079 (2001).
		Yoshikawa et al., "Secretion of non-helical collagenous polypeptides of α1(IV) and α2(IV) chains upon depletion of ascorbate by cultured human cells," J. Biochem. 129:929-936 (2001).
		GenBank Accession No. XP_159359
		GenBank Accession No. XP_166493
		GenBank Accession No. NP_493955

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.